

Abstract

The present invention comprises a lead frame substrate adapted to receive semiconductor die and multiple passive components. The lead frame substrate is preferably formed from a single piece of electrically conductive material, such as copper, and may be mounted within a lead frame package or directly onto a circuit board. The lead frame substrate includes mounting surfaces adapted to receive the semiconductor dice and passive components. The mounting surfaces are linked together by temporary and/or permanent connection bars. A method to manufacture the lead frame package includes, among other steps, forming a lead frame substrate, applying a molding compound to the lead frame substrate to fix each mounting surface and connection bar in place, removing the temporary connection bars, mounting the semiconductor components on the lead frame substrate, and applying a packaging material over the lead frame substrate to encapsulate the semiconductor components.

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